

Sheet 1 of 22

Figure 1 (SEQ ID NO:724)

85P1B3 SSH sequence and GenBank homology to OIP5

GATCAGAGGACACATGGGACTCTGCATCTAATTCTAAATTACAGTCAAAGACATTTCAAGATAAGTATTATGAATTCAATAAGAATCTAAAGTAAGTTCTAAGGCAAATAGCTATAAAA
GAGAAGAACTCTAGTCTCATCTTCTAAAAACAGCTTCACAAATAATTGGAAATCAGCTAAAGGTAAATAGAAACTGCATTCCCTCCATTCTGAAGCCAATCTTTCAAGAAATGACTAAGCAGCACCTGTTGAAGACAGCAATAAGCCTGAACCTGACACTCAAGCTTGGTACAGATC

gb|AF025441.1|AF025441 Homo sapiens Opa-interacting protein... 632 e-179
gb|AF158642.1|AF158642 Homo sapiens metalloproteinase-disin... 42 0.12
gb|AC005075.2|AC005075 Homo sapiens clone RG219E16, complet... 42 0.12
emb|AL096773.6|HS1000E10 Human DNA sequence from clone 1000... 40 0.48

>gb|AF025441.1|AF025441 Homo sapiens Opa-interacting protein OIP5 mRNA, partial cds
Length = 1197

Score = 632 bits (319), Expect = e-179

Identities = 319/319 (100%)

Strand = Plus / Minus

Query: 1 gatcagaggacacatgggactctgcacatctaattctaaattacagtcaaagacat 60
Sbjct: 1013 gatcagaggacacatgggactctgcacatctaattctaaattacagtcaaagacat 954

Query: 61 cagagataagtattatgaattcaataagaatctaaagtaagttcttaaggccaaatagcta 120
Sbjct: 953 cagagataagtattatgaattcaataagaatctaaagtaagttcttaaggccaaatagcta 894

Query: 121 taaaagagaagaatccttagtctctcatcttctaaaaacagcttcacaaataattggaa 180
Sbjct: 893 taaaagagaagaatccttagtctctcatcttctaaaaacagcttcacaaataattggaa 834

Query: 181 aatcagcctaaaggtaaatagaaactgcattccctccattttgaagccaatctttt 240
Sbjct: 833 aatcagcctaaaggtaaatagaaactgcattccctccattttgaagccaatctttt 774

Query: 241 caagaaatgactaaggcacctgttgtgaagacagcaataaagcctgaacctgacact 300
Sbjct: 773 caagaaatgactaaggcacctgttgtgaagacagcaataaagcctgaacctgacact 714

Query: 301 caagcttggtagaggatc 319 (SEQ ID NO:725)
Sbjct: 713 caagcttggtagaggatc 695 (SEQ ID NO:726)

Sheet 2 of 22

Figure 2

cDNA Sequence and ORF of 85P1B3/OIP5 clone A
(SEQ ID NO:727)

5' GGC TGC GGG AAG ATG GCG GCT CAG CCG CTG CGG CAT CGC TCA CGT TGT GCA ACG
 (SEQ ID NO:728) M A A Q P L R H R S R C A T
 CCG CCC CGG GGG GAC TTT TGT GGT GGC ACT GAG AGG GCG ATT GAC CAA GCT TCT
 P P R G E F C G G T E R A I D Q A S
 TTT ACG ACC TCC ATG GAG TGG GAT ACG CAG GTG GTG AAG GGG TCC TCG CCG CTC
 F T T S M E W D T Q V V K G S S P L
 GGC CCC GCA GGG CTG GGG GCT GAG GAG CCA GCC GCC GGC CCG CAG CTG CCG TCT
 G P A G L G A E E P A A G P Q L P S
 TGG CTG CAG CCT GAG AGG TGC GCT GTG TTC CAG TGC GCA CAG TGT CAC GCA GTG
 W L Q P E R C A V F Q C A Q C H A V
 CTC GCC GAC TCG GTG CAC CTC GCC TGG GAC CTG TCG CGG TCC CTC GGG GCC GTG
 L A D S V H L A W D L S R S L G A V
 GTC TTC TCC AGA GTT ACA AAT AAC GTC GTT TTG GAA GCG CCC TTC CTA GTT GGC
 V F S R V T N N V V L E A P F L V G
 ATT GAA GGT TCA CTC AAA GGC AGT ACT TAC AAC CTT TTA TTC TGT GGT TCT TGT
 I E G S L K G S T Y N L L F C G S C
 GGG ATT CCC GTT GGT TTC CAT CTG TAT TCT ACC CAT GCT GCC CTG GCT GCC TTG
 G I P V G F H L Y S T H A A L A A L
 AGA GGT CAC TTC TGC CTT TCC AGT GAC AAA ATG GTG TGC TAT CTC TTA AAA ACA
 R G H F C L S S D K M V C Y L L K T
 AAA GCC ATA GTA AAT GCA TCA GAG ATG GAT ATT CAA AAT GTT CCT CTA TCA GAA
 K A I V N A S E M D I Q N V P L S E
 AAG ATT GCA GAG CTG AAA GAG AAG ATA GTG CTA ACG CAC AAT CGC TTA AAA TCA
 K I A E L K E K I V L T H N R L K S

Sheet 3 of 22

Sheet 4 of 22

Figure 3

85P1B3/OIP5 protein sequence. (SEQ ID NO:729)

1 MAAQPLRHRS RCATPPRGDF CGGTERAIDQ ASFTTSMEDW TQVVKGSSPL GPAGLGAEFP
61 AAGPQLPSWL QPERCAVFQC AQCHAVLADS VHLAWDLRSR LGAVVFSRVT NNVVLEAPFL
121 VGIEGSLKGS TYNLLFCGSC GIPVGFHLYS THAALAALRG HFCLSSDKMV CYLLKTKAIV
181 NASEMDIQNV PLSEKIAELK EKIVLTHNRL KSLMKILSEV TPDQSKPEN*

Figure 4

Alignment of 85P1B3 with OIP5.

>gi|2815610|gb|AAC39561.1| (AF025441) Opa-interacting protein OIP5 [Homo sapiens]
Length = 231

Score = 462 bits (1189), Expect = e-130

Identities = 229/229 (100%), Positives = 229/229 (100%)

85P1B3: 1 MAAQPLRHSRCATPPRGDFCGGTERAIDQASFTTSMEDWTQVVKGSPLGPAGLGAEEP 60
 MAAQPLRHSRCATPPRGDFCGGTERAIDQASFTTSMEDWTQVVKGSPLGPAGLGAEEP
 OIP5: 3 MAAQPLRHSRCATPPRGDFCGGTERAIDQASFTTSMEDWTQVVKGSPLGPAGLGAEEP 62

85P1B3: 61 AAGPQLPSWLQPERCAVFQCAQCHAVALDSVHLAWDLRSLSLGAFFSRVTNNVLEAPFL 120
 AAGPQLPSWLQPERCAVFQCAQCHAVALDSVHLAWDLRSLSLGAFFSRVTNNVLEAPFL
 OIP5: 63 AAGPQLPSWLQPERCAVFQCAQCHAVALDSVHLAWDLRSLSLGAFFSRVTNNVLEAPFL 122

85P1B3:121 VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV 180
 VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV
 OIP5: 123 VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV 182

85P1B3:181 NASEMDIQNVPPLSEKIAELKEKIVLTHNRLKSLMKILSEVTPDQSKPEN 229 (SEQ ID NO:730)
 NASEMDIQNVPPLSEKIAELKEKIVLTHNRLKSLMKILSEVTPDQSKPEN
 OIP5: 183 NASEMDIQNVPPLSEKIAELKEKIVLTHNRLKSLMKILSEVTPDQSKPEN 231 (SEQ ID NO:731)

Figure 5: 85P1B3 Hydrophilicity profile
(Hopp T.P., Woods K.R., 1981. Proc. Natl. Acad. Sci. U.S.A. 78:3824-3828)

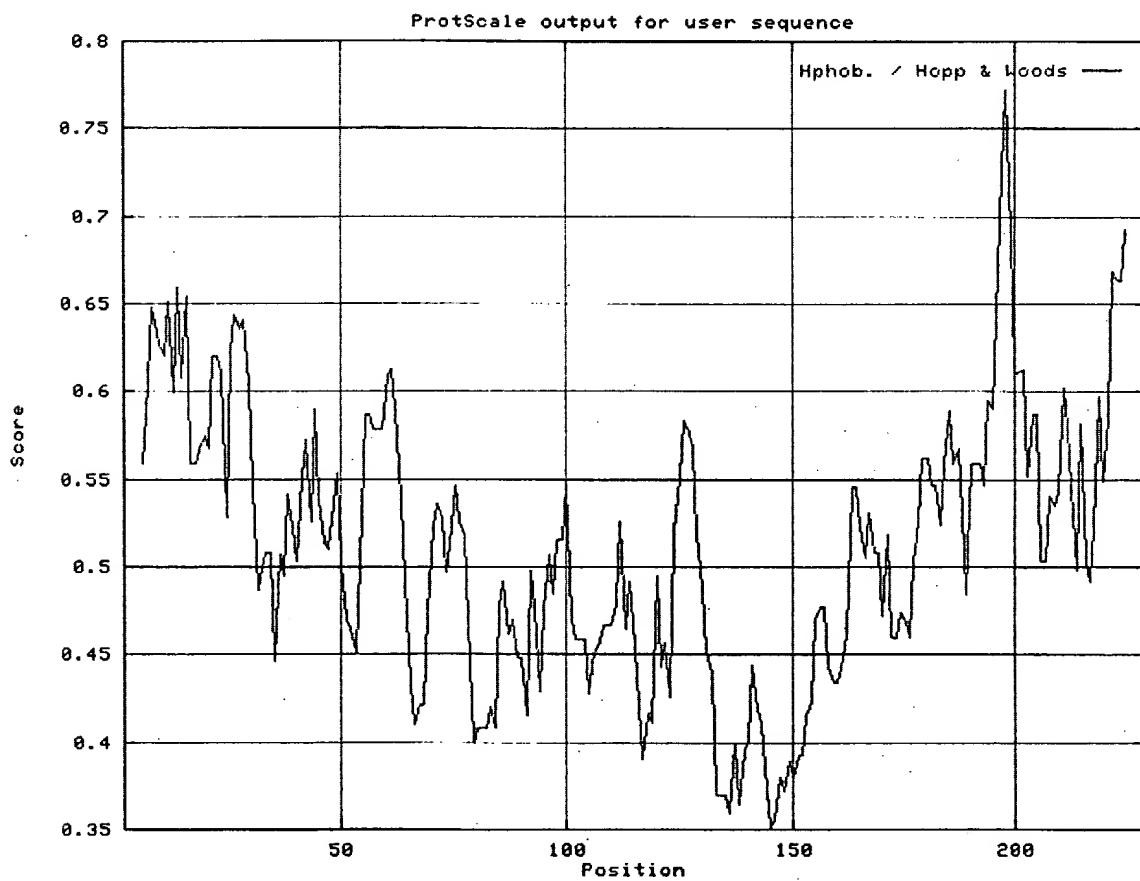


Figure 6: 85P1B3 Hydropathicity Profile
(Kyte J., Doolittle R.F., 1982. J. Mol. Biol. 157:105-132)

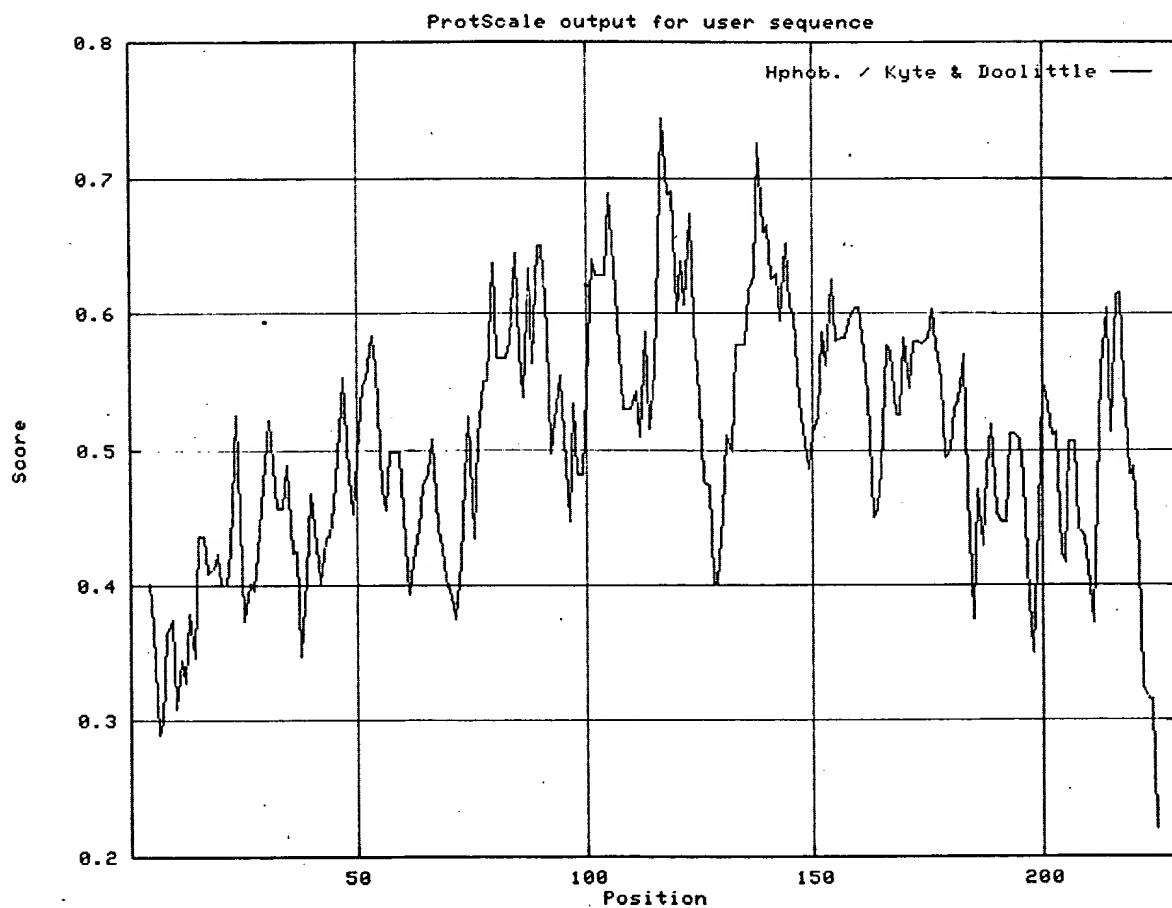


Figure 7: 85P1B3 % Accessible Residues Profile
(Janin J., 1979. Nature 277:491-492)

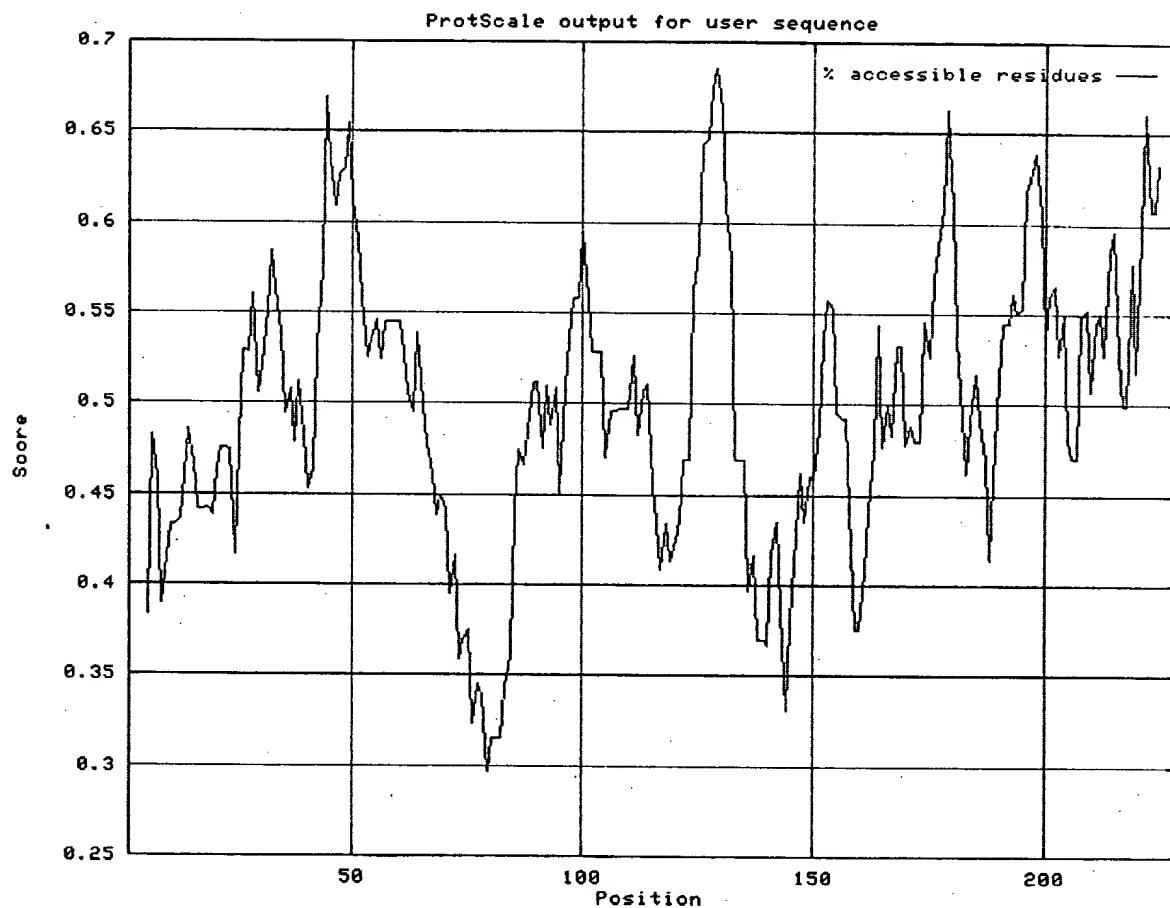


Figure 8: 85P1B3 Average Flexibility Profile
(Bhaskaran R., Ponnuswamy P.K., 1988.
Int. J. Pept. Protein Res. 32:242-255)

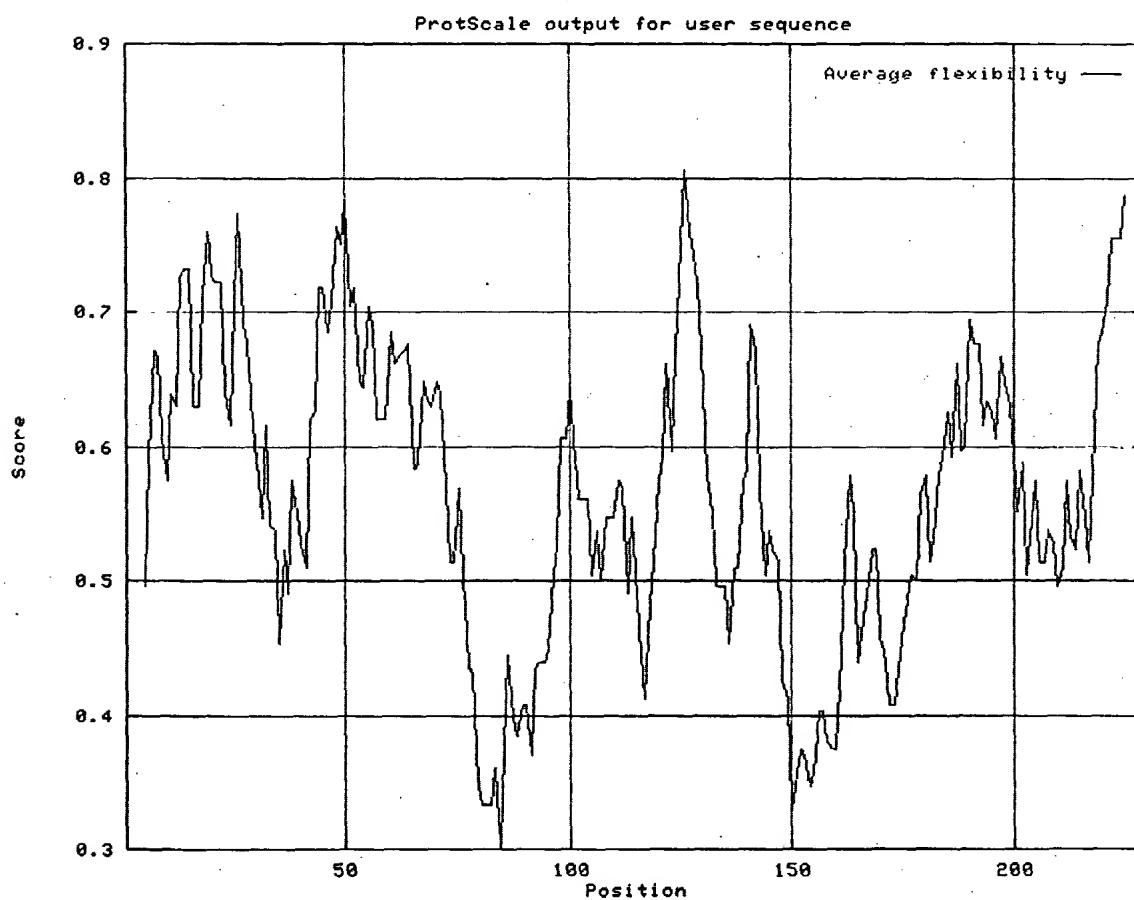
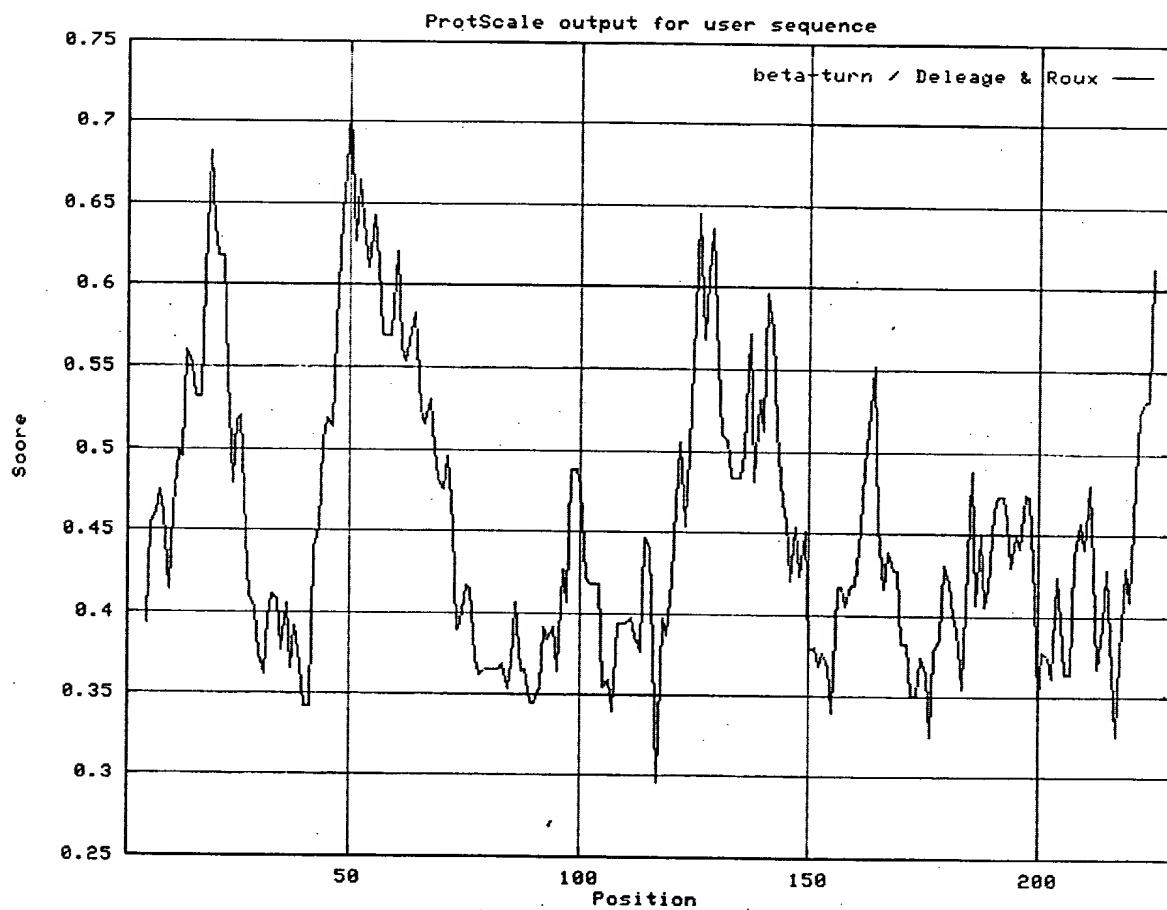


Figure 9: 85P1B3 Beta-turn Profile
(Deleage, G., Roux B. 1987. Protein Engineering 1:289-294)



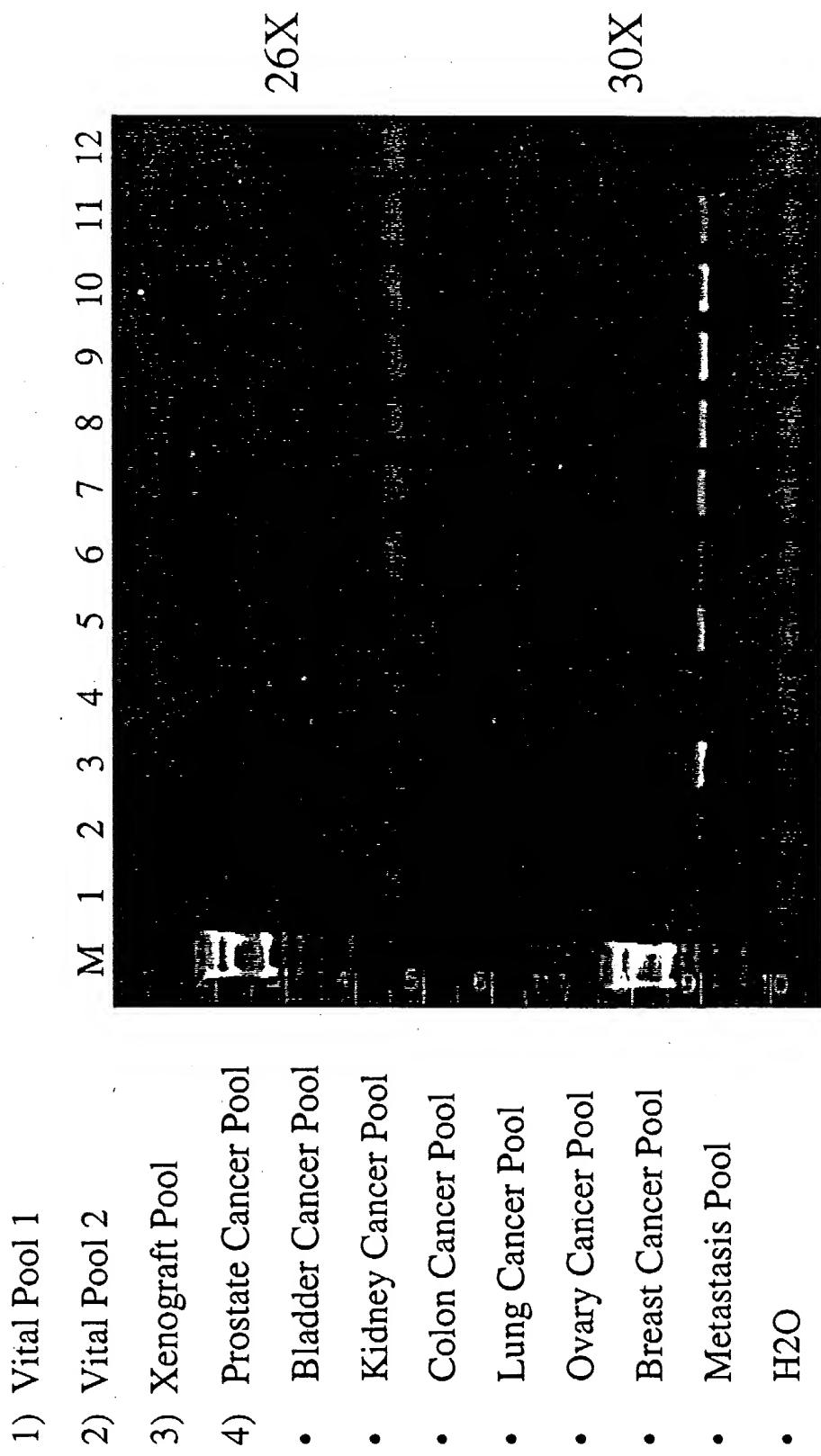


Figure 11 Expression of 85P1B3 in Normal Human Tissues

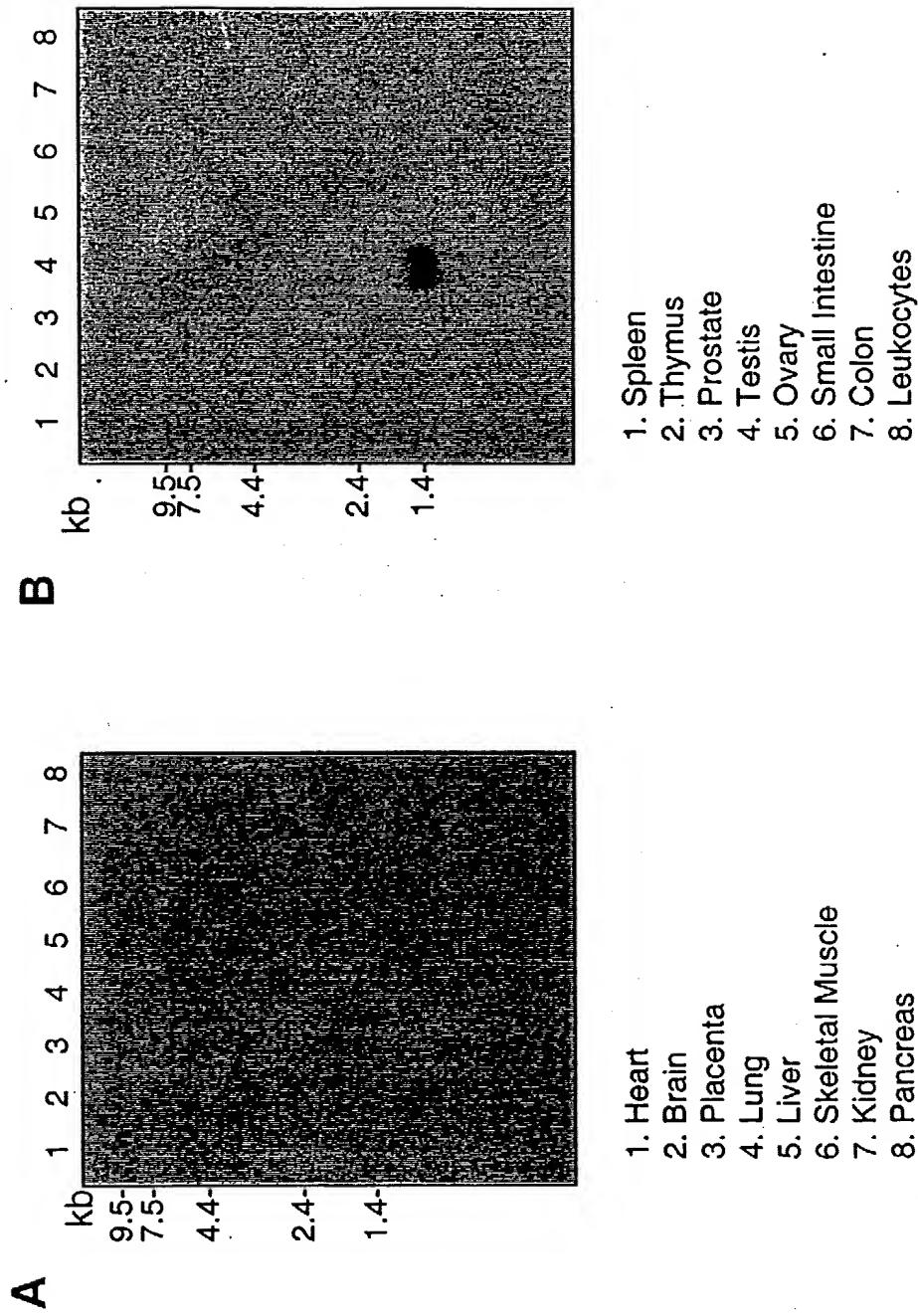


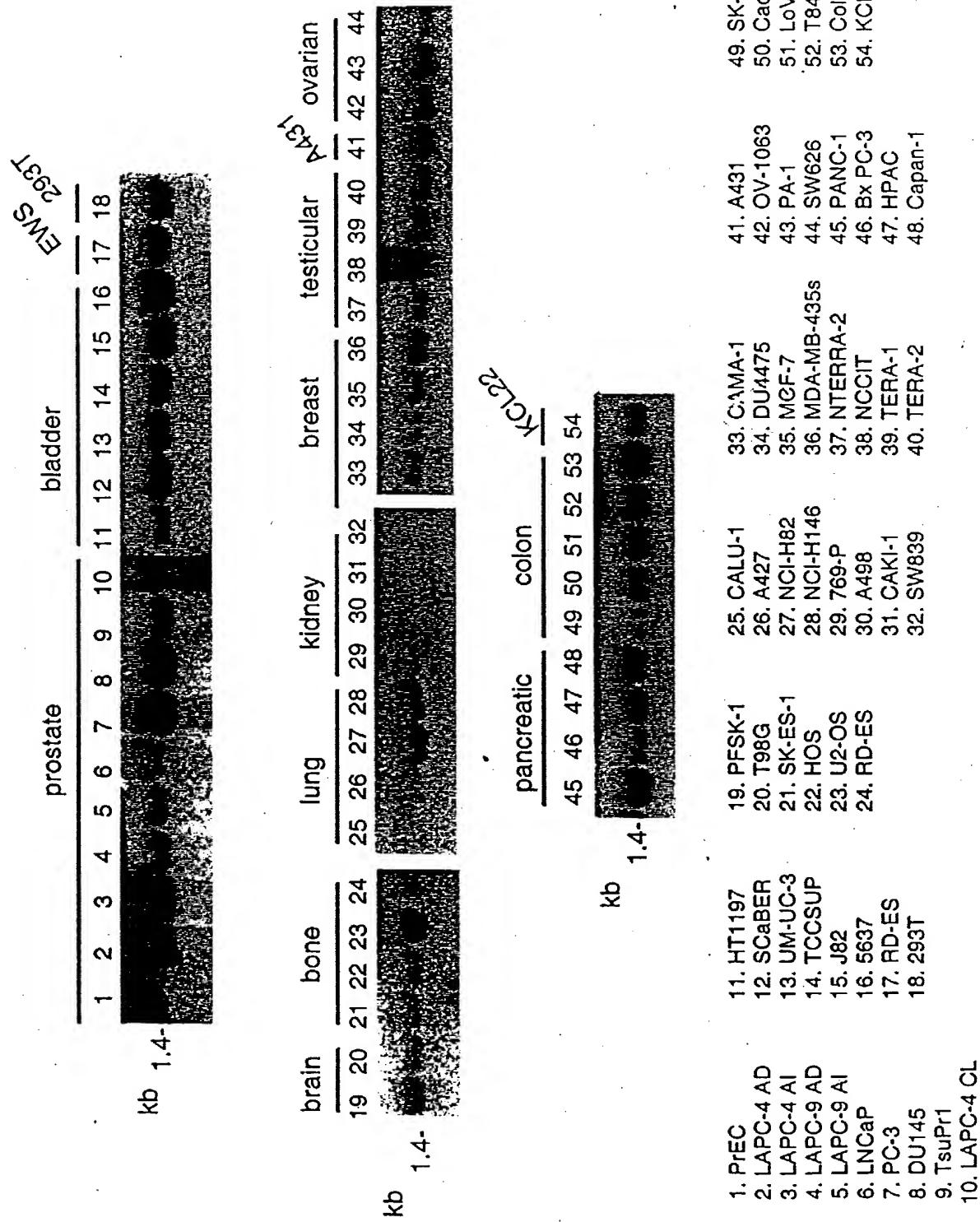
Figure 12 Expression of 85P1B3 In Human Cancer Cell Lines

Figure 13 Expression of 85P1B3 in Patient Cancer Specimens and Cancer Cell Lines

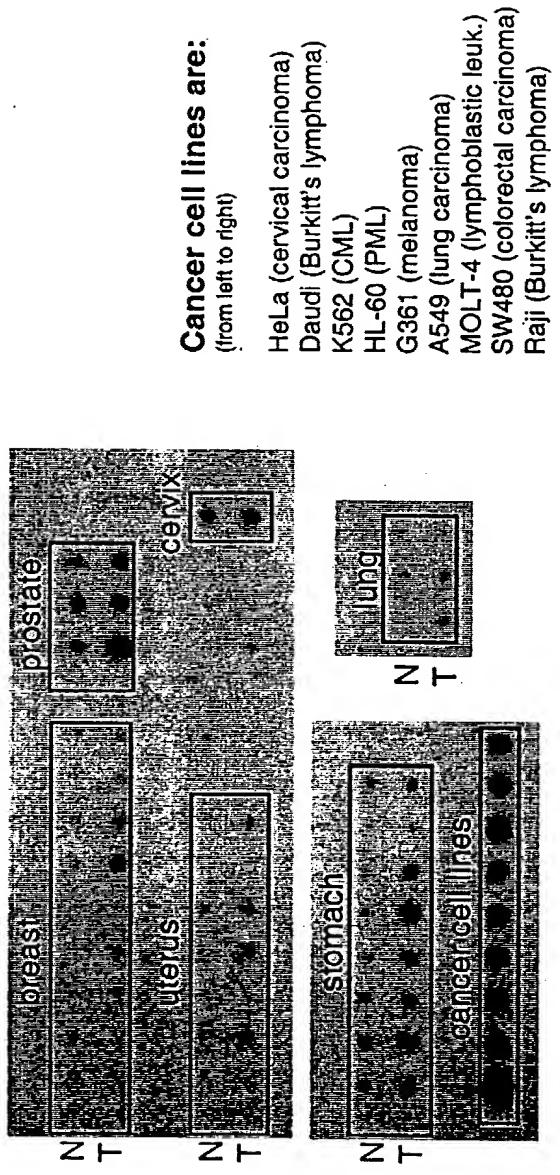


Figure 14 Expression of 85P1B3 in Colon Cancer Patient Specimens

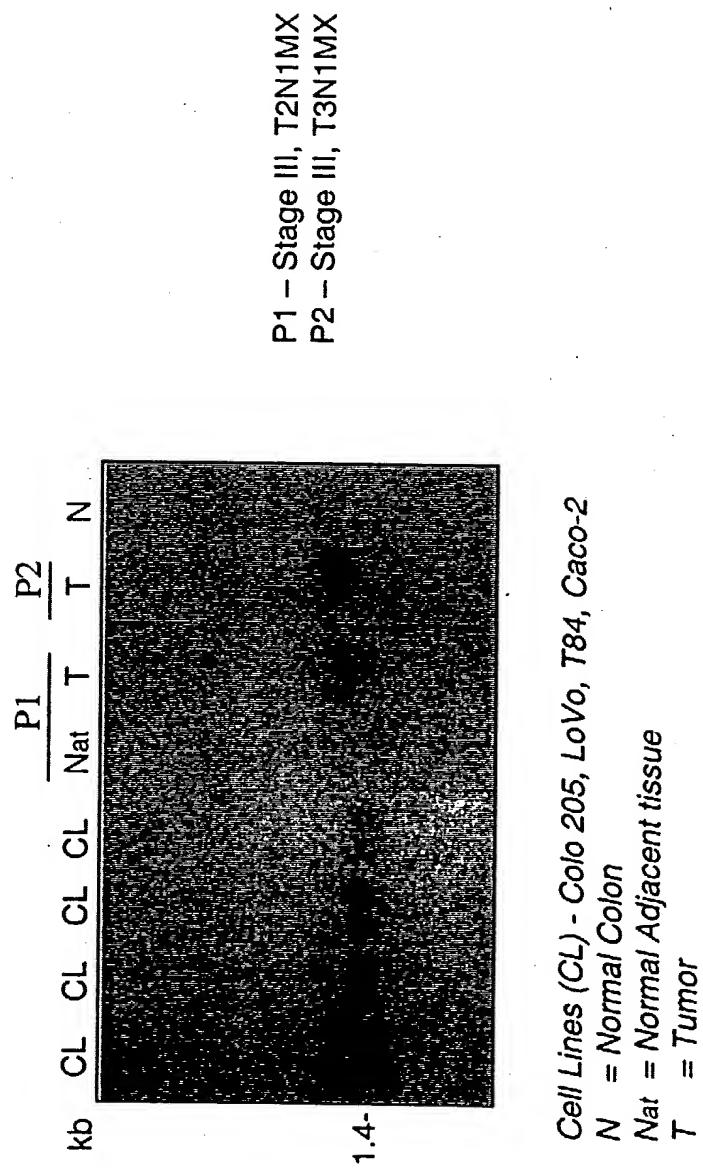
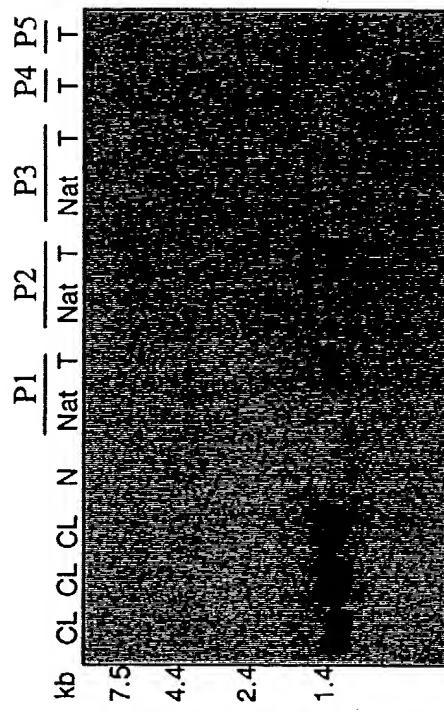


Figure 15 Expression of 85P1B3 in Bladder Cancer Patient Specimens



P1 - Transitional, grade 2

P2 - Transitional, grade 3/2

P3 - Transitional

P4 - Polypoid cystitis

P5 - Papillary, grade 3

CL = cell lines listed in order: UM-UC-3, J82, SCABER

P = Patient

N = Normal Bladder

Nat = Normal adjacent tumor

T = Tumor

Figure 16 Expression of 85P1B3 in Lung Cancer Patient Specimens

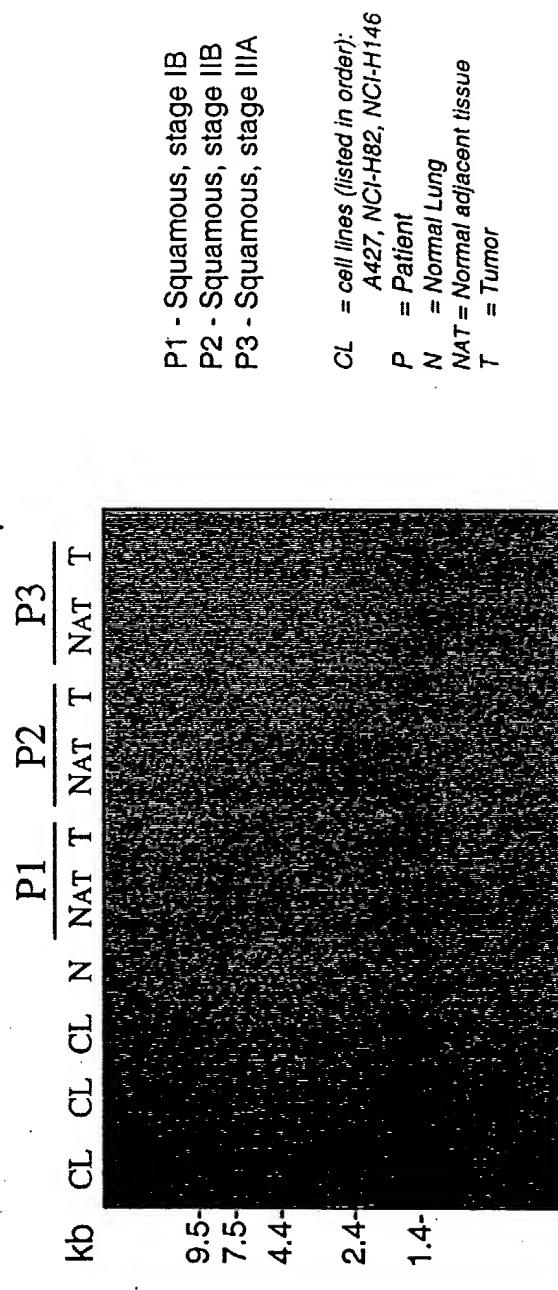


Figure 17 Expression of 85P1B3 in Prostate Cancer Xenografts Following Castration

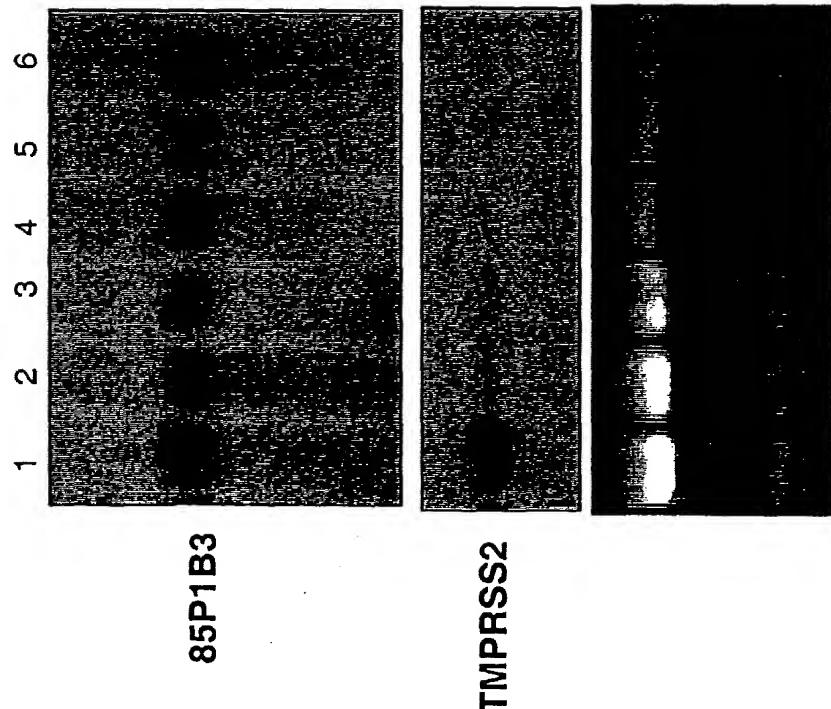


Figure 18 Expression of 85P1B3 in PC3 Cells Following Retroviral-Mediated Gene Delivery

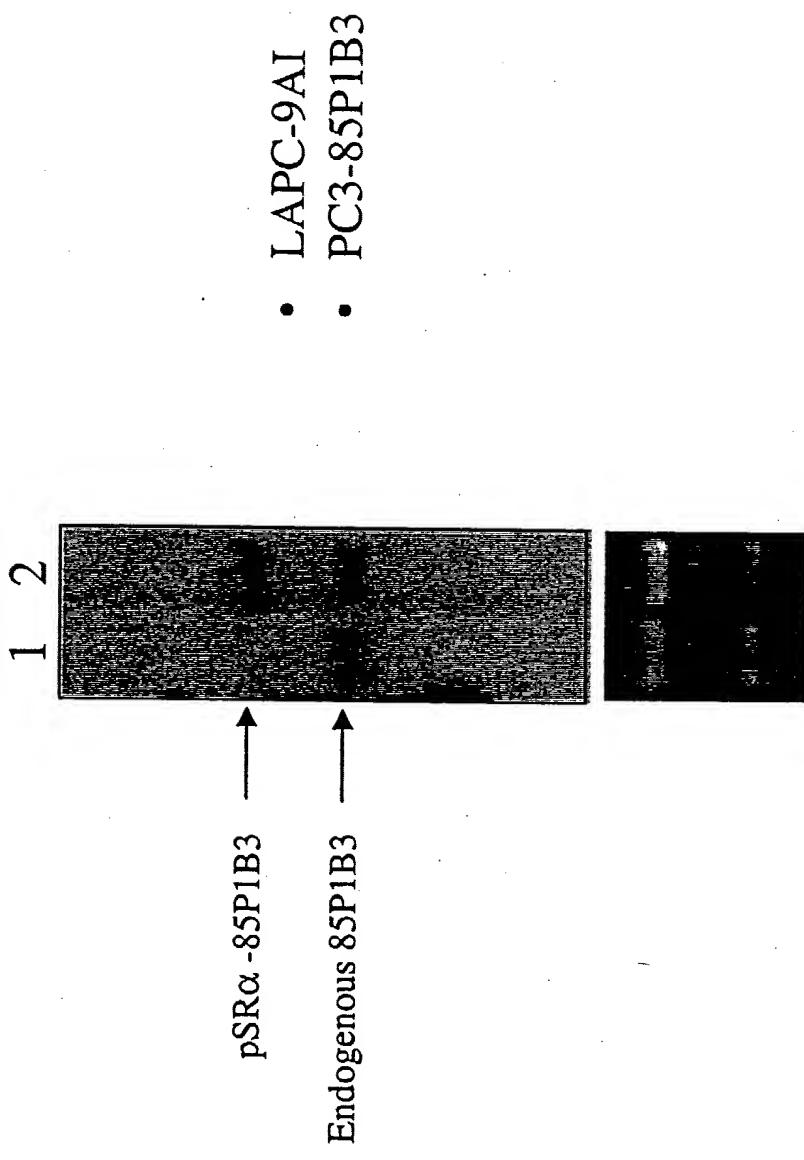
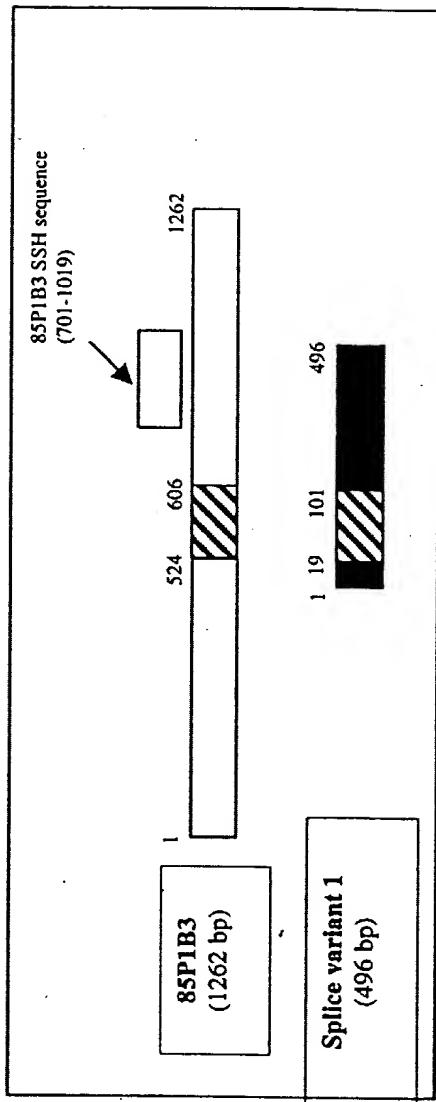


Figure 19.



Sheet 21 of 22

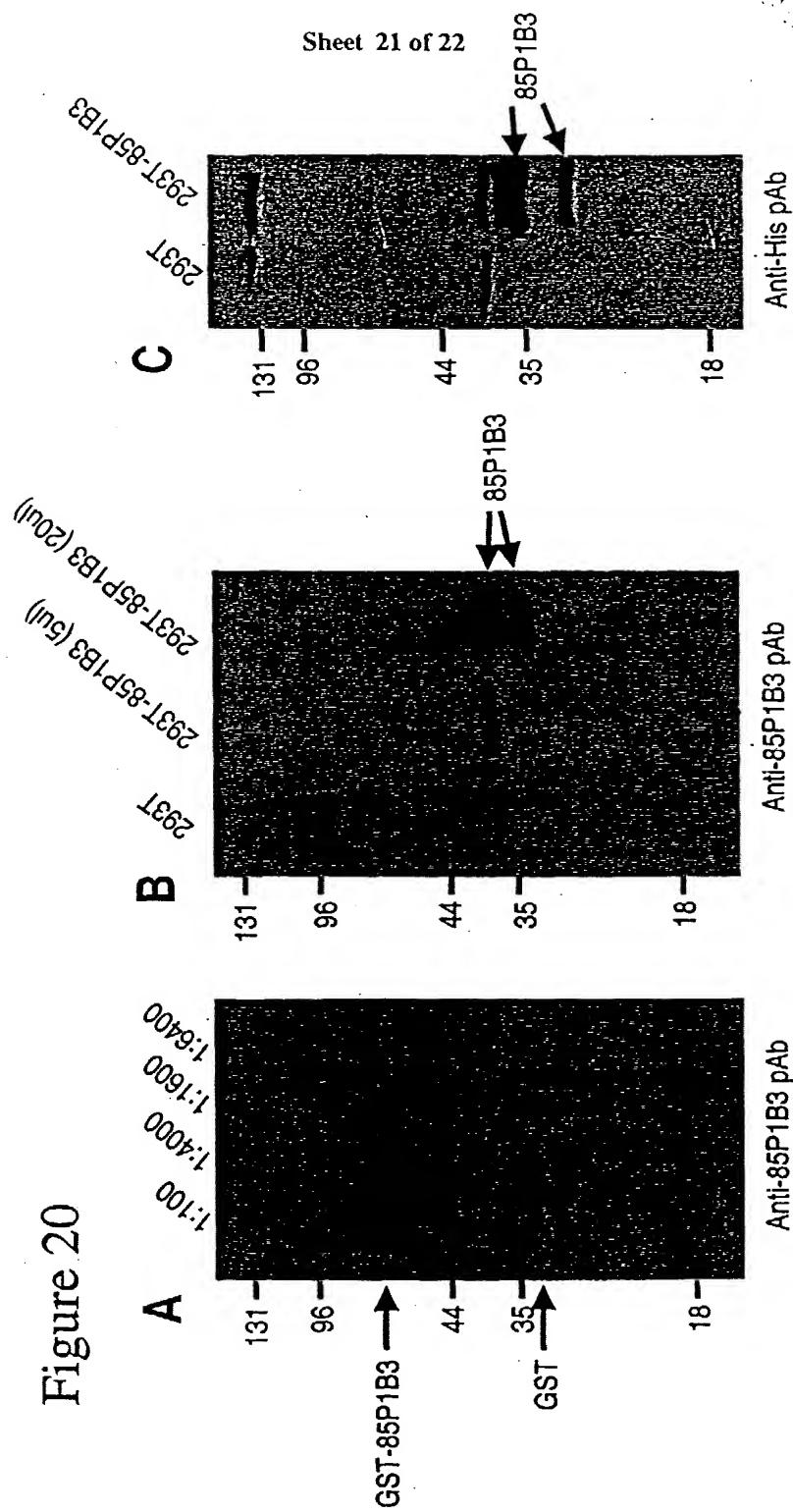


Fig. 21A

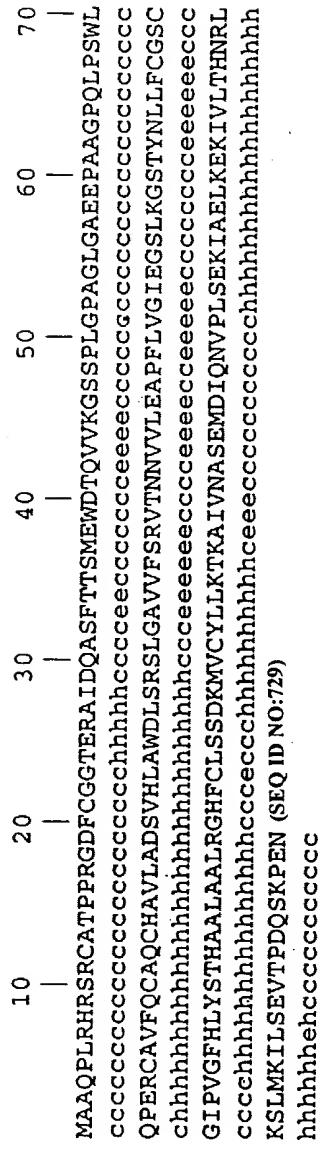


Fig. 21B

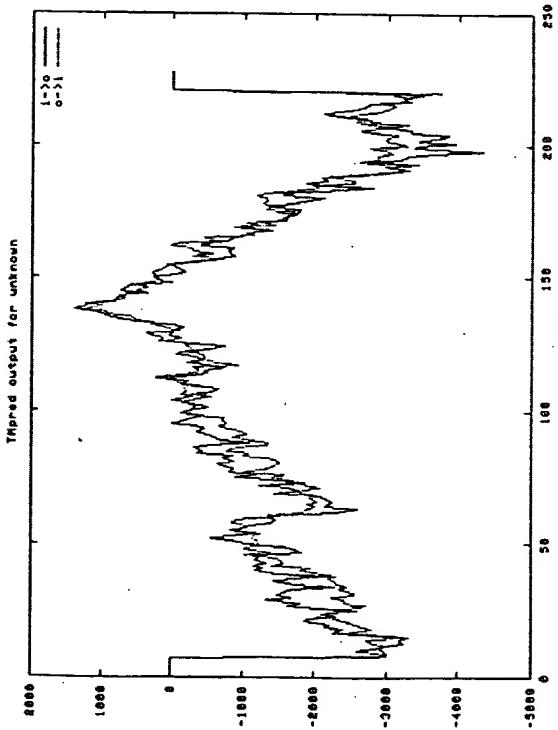
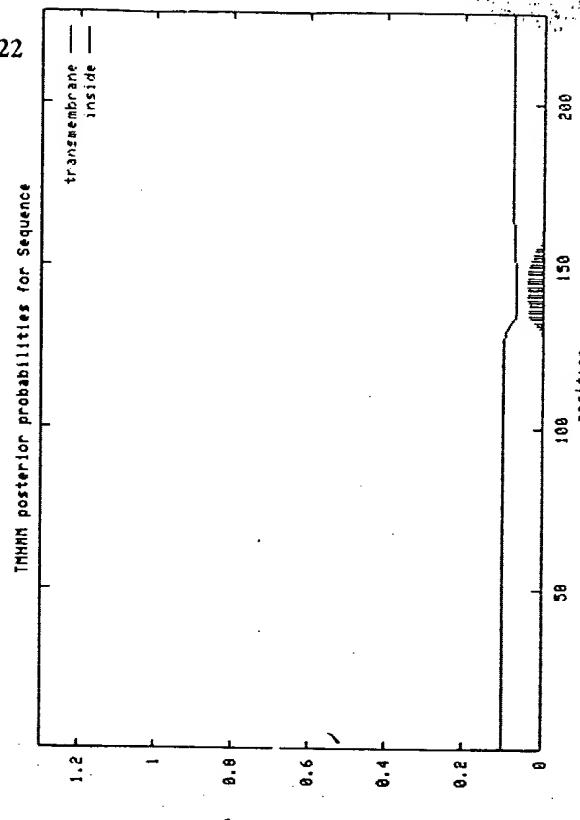


Fig. 21C



1 transmembrane from amino acids 129-149